





## **TECHNOLOGY HIGHLIGHTS:**

- Worldwide operating frequencies from 860 to 960 MHz
- Reliable performance on both metal and non-metal surfaces
- Waterproof under high pressure / high temperature conditions; chemical and impact resistant
- Mounting options include nails, screws, rivets, welding and glues
- Large memory of up to 512-bit user memory and 128-bit EPC

## ROBUST, ALL-PURPOSE RAIN® UHF TAGS MOUNT TO ANY SURFACE MATERIAL AND DELIVER LONG READ RANGES

- Extreme durability resistant to outdoor elements as well as blunt and sharp impact
- Multiple mounting options glue, screw, rivet or weld
- **Enhanced reliability** read-write on any material, up to 26 ft (8 m)
- Broadband frequency for worldwide use

HID Global's InLine Tag™ Ultra transponders are the most advanced general-purpose RAIN® UHF tags available. Choose from options that mount on any material while enabling read ranges of up to a 26 ft (8 m).

InLine Tag devices improve data collection speed and accuracy for logistics applications, while making tracking more cost-effective. These tags make it possible to identify individual, liquid-filled kegs using RFID readers, as truckloads of them pass through designated points of distribution and delivery.

RAIN UHF technology enables anticollision functionality, fast data-rate communication and password data protection for precise, reliable reading and updating of each tag's read-write memory. All InLine Tag transponders are compliant with EPC globalcertified UHF Class 1 Gen 2 readers and modules, including broadband capability for international operations.

The tough and versatile InLine Tag transponders are available for mounting on metal, plastic or wood using standard

M5 screws, rivets, industrial adhesives or welding. The tags are lightweight, waterproof and resist high-pressure/ high temperature washing conditions according to the highest standard (IP69K).

InLine Tag Ultra RFID tags include HID Global's patented 3D antenna, enabling omnidirectional read range performance independent of mounting material. The larger tags also enable maintenance of separate public and private profiles for added data security.

The InLine Tag Ultra Curve version is arched to hug metallic kegs or gas cylinders, and durably withstands typical washing and disinfection cycles. Slim versions of the tags enable optimal UHF performance for space-restricted applications, and are configured for attachment via screw or weld.

With the smallest footprint, the Mini version is ideal for tagging roll-cages, boxes, furniture or tools. They attach to any material, and deliver excellent size-to-performance ratios.



## **APPLICATION AREAS:**

- Asset tracking and logistics
  - Postal and road toll management: truck, wagon and train tracking
  - Supply chain management: pallet and goods tracking
- Returnable transport items
  - Shipping container tracking
  - Metal keg and gas cylinder identification
  - Furniture, boxes and tools
- Waste management
  - Commercial and industrial bin identification



HID Global can create a custom tag solution to fit your application requirements for chip type, dimensions, programming and materials.









## **SPECIFICATIONS**

|  | InLine Tag™ Ultra  |  |   |   |   |   |
|--|--|--|---|---|---|---|
|  | Mini   | Standard   | Weld  | Slim                                    | Slim Weld                                   | Curve   |
| Base Model<br>Number                               | 6F1987-102   | 6A7980 (blue)<br>6A7980-102<br>(grey) 6A7980-<br>120 (grey,<br>1D-barcode) | 6A7981                                      | 6A7983                                  | 6A7984                                      | 6A7982  |
| ELECTRONIC   |  |  |   |   |   |   |
| Operating<br>Frequency                             | 865-956 MHz (worldwide)  |  |   |   |   |   |
| Chip Type  | Monza R6 Monza 4QT   |  |   |   |   |   |
| Memory   | 96 bit EPC + 48 bit TID 128 bit EPC + 96 bit TID + 512 bit user memory   |  |   |   |   |   |
| Anti-Collision                                     | Yes  |  |   |   |   |   |
| Reading Distance<br>(2W reader ERP,<br>free space) | Up to 9.8 ft<br>(3 m)  | Up to 26.2   | ! ft (8 m)                                  | Up to 16.4                              | Up to 26.2 ft (8 m)                         |   |
| PHYSICAL   |  |  |   |   |   |   |
| Dimensions   | 2.4 × 0.7 × 0.3 in<br>(60 × 18 × 8 mm)   | 3.8 × 1.1 × 0.6 in<br>(97 × 27 × 15<br>mm)                                 | 4.1 × 1.4 × 0.6 in<br>(105 × 35 × 15<br>mm) | 3.8 × 1.1 × 0.4 in<br>(97 × 27 × 10 mm) | 4.1 × 1.4 × 0.4 in<br>(105 × 35 × 10<br>mm) | 3.5 × 1.5 × 0.6 in<br>(88 × 37 × 14.5<br>mm);<br>17.7 in (450 mm)<br>curve radius |
| Mounting Method                                    | Screw, rivet   | Screw  | Weld  | Screw                                   | We  | eld   |
| Screw Mounting<br>Hole                             | Ø 0.2 in (4.5<br>mm)   | Ø 0.2 in (5.2<br>mm)   |   | Ø 0.2 in (5.2<br>mm)                    |   |   |
| Affixes To   |  | All surfaces, including metal, plastic, wood Curved metal                  |   |   |   |   |
| Housing Material                                   | High-impact plastic  |  | High-impact plastic, stainless steel ring   | High-impact plastic                     | High-impac<br>stainless s                   |   |
| Color  | Grey   |  | Pantone blue 2870                           | or grey (custom col                     | ors available)                              |   |
| Weight   | 0.2 oz (6.3 g)   | 0.5 oz (16 g)  | 0.6 oz (18 g)                               | 0.4 oz (12 g)                           | 0.5 oz (14 g)                               | 0.5 oz (15 g)   |
| CHEMICAL AND MECHANICAL                            |  |  |   |   |   |   |
| Water  | IP68, IP69K, 176° F (80° C), 100 bar, 30 sek. 16 l/min   |  |   |   |   |   |
| Withstands<br>Exposure To                          | Mineral oil, petroleum, salt mist, vegetable oil; up to 80% humidity at 158° F (70° C)   |  |   |   |   |   |
| Environmental<br>Test Conditions                   | 68° F (20° C), 100 h   |  |   |   |   |   |
| Vibration  | IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]  |  |   |   |   |   |
| Shock  | IEC 68.2.29 [40 g, 18 ms, 6 axis, 2000 times]  |  |   |   |   |   |
| Impact   | IEC 62262-IK07 IEC 62262-IK09 IEC 62262  |  |   |   | IEC 62262-IK08                              |   |
| Axial/Radial Force                                 |  |  | 1000 N                                      | , 10 sec                                |   |   |
| THERMAL  |  |  |   |   |   |   |
| Storage Operating                                  | -40° to +185° F (-40° to +85° C), 1x1000 h   |  |   |   |   |   |
| Temperature  | -40° to +185° F (-40° to +85° C)   |  |   |   |   |   |
| Shock/Fatigue                                      | -40° to +185° F (-40° to +85° C), 100 x 5 min with 20 sec transition   |  |   |   |   |   |
| OTHER  |  |  |   |   |   |   |
| Standards  | UHF EPC Class 1 Gen 2, ISO 18000-6C, ISO 17364, DIN 40050-9  Custom embossed logo, no logo or custom tag color. Laser engraving of custom logo, barcode or text on |  |   |   |   |   |
| Options  | grey tag versions. By default, grey tags are supplied without logo or laser engraving.   |  |   |   |   |   |
| Box Size   | 250 pcs. 240 pcs. 360 pcs. 240 pcs.  |  |   |   |   |   |
| Warranty   | 2 Years  |  |   |   |   |   |



